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MICROARRAY-BASED ANALYSIS OF RHEUMATOID ARTHRITIS  
MARKERS

Petchpud, et al.

Appl. No.: Unknown Atty Docket: MGENE.016A

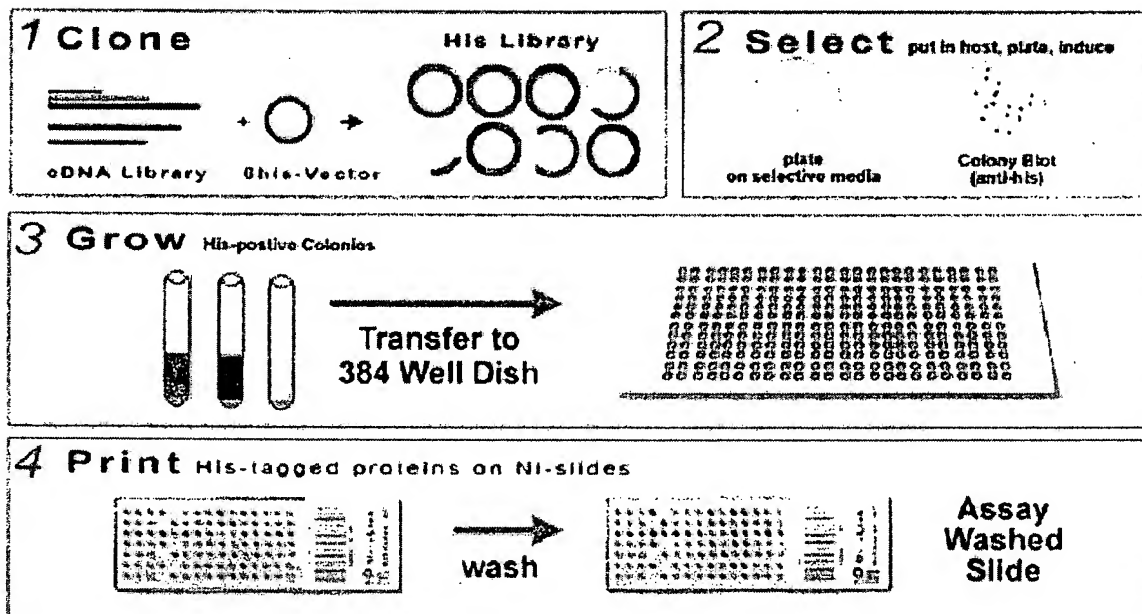
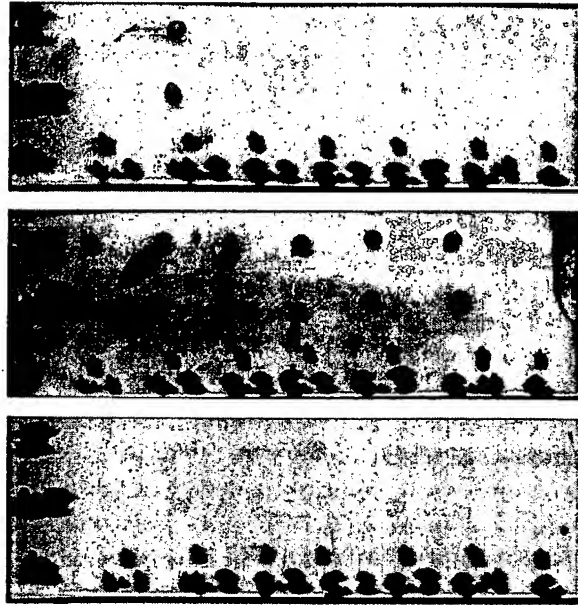


Figure 1

*MICROARRAY-BASED ANALYSIS OF RHEUMATOID ARTHRITIS  
MARKERS*

*Petchpud, et al.*

*Appl. No.: Unknown      Atty Docket: MGENE.016A*



**FIGURE 1. EXAMPLE TESTING 6XHIS-TAGGED PROTEINS.**

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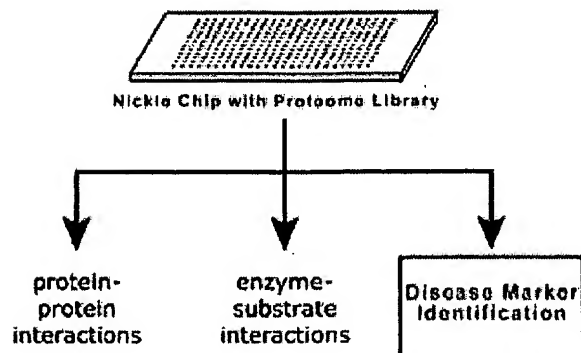


Figure 3

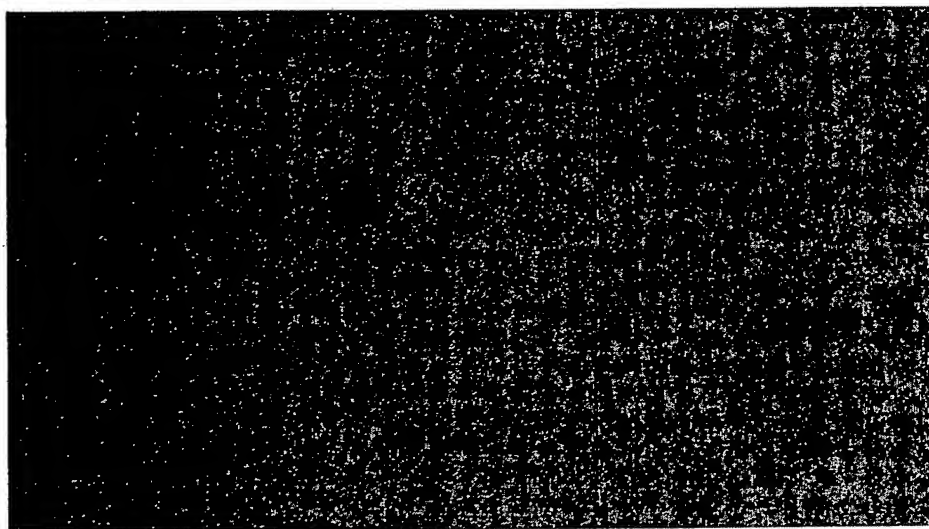
MICROARRAY-BASED ANALYSIS OF RHEUMATOID ARTHRITIS  
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Control  
1:500



Rheumatoid Arthritis  
1:500

Figure 4

MICROARRAY-BASED ANALYSIS OF RHEUMATOID ARTHRITIS  
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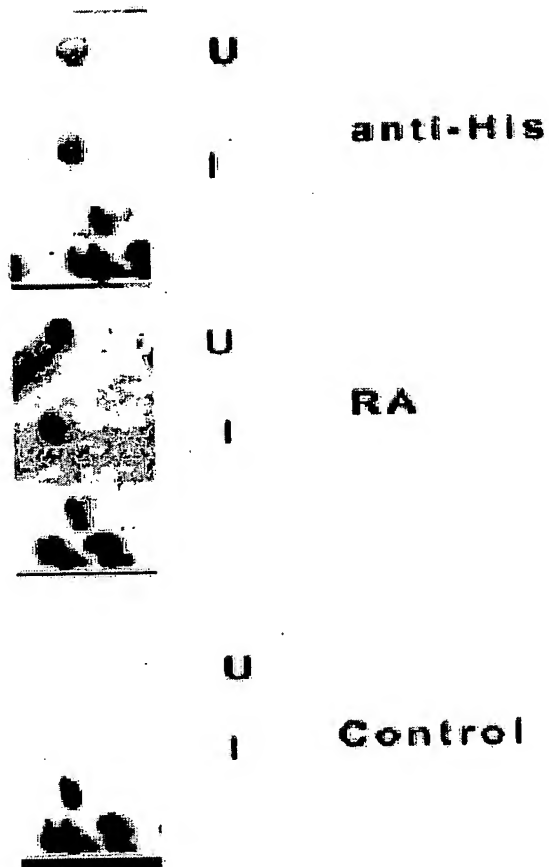


Figure 5

# Example 1: Capture assay

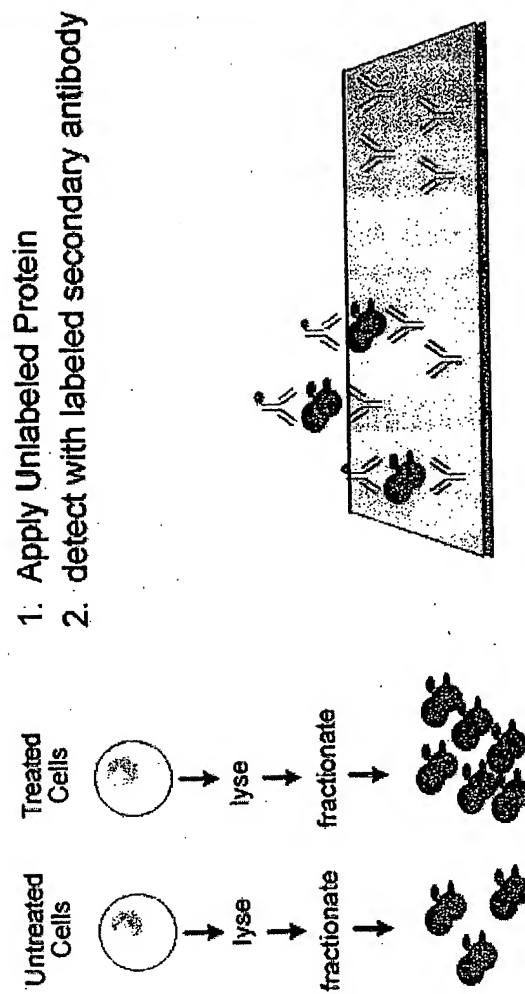


Figure 6A

MICROARRAY-BASED ANALYSIS OF RHEUMATOID ARTHRITIS  
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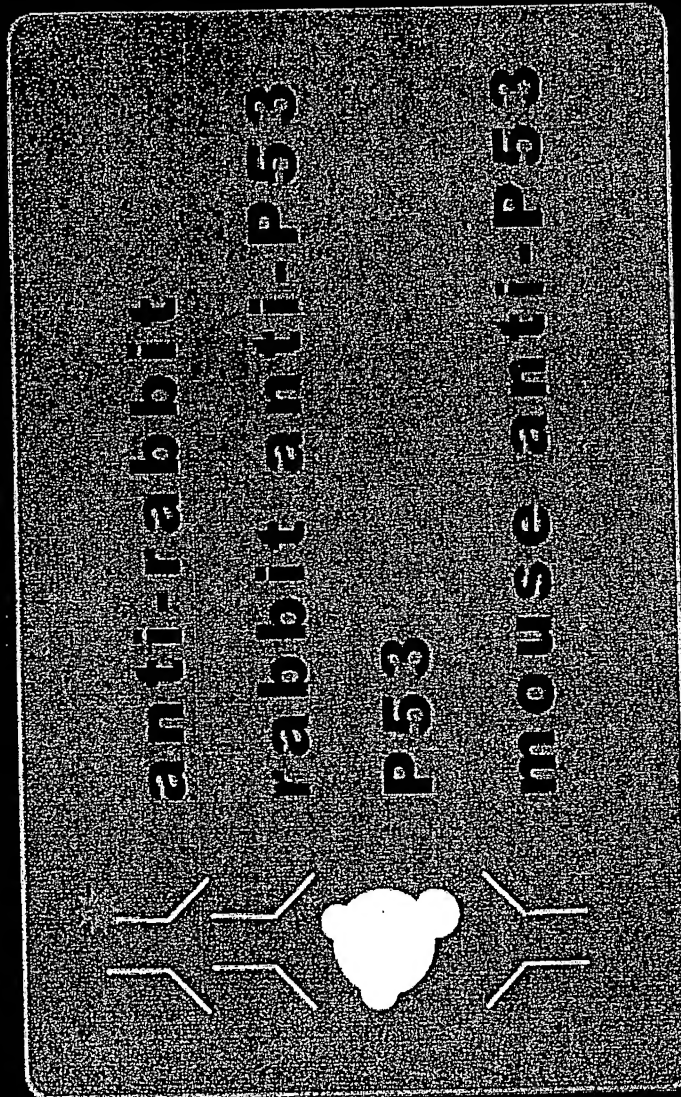


Figure 6B

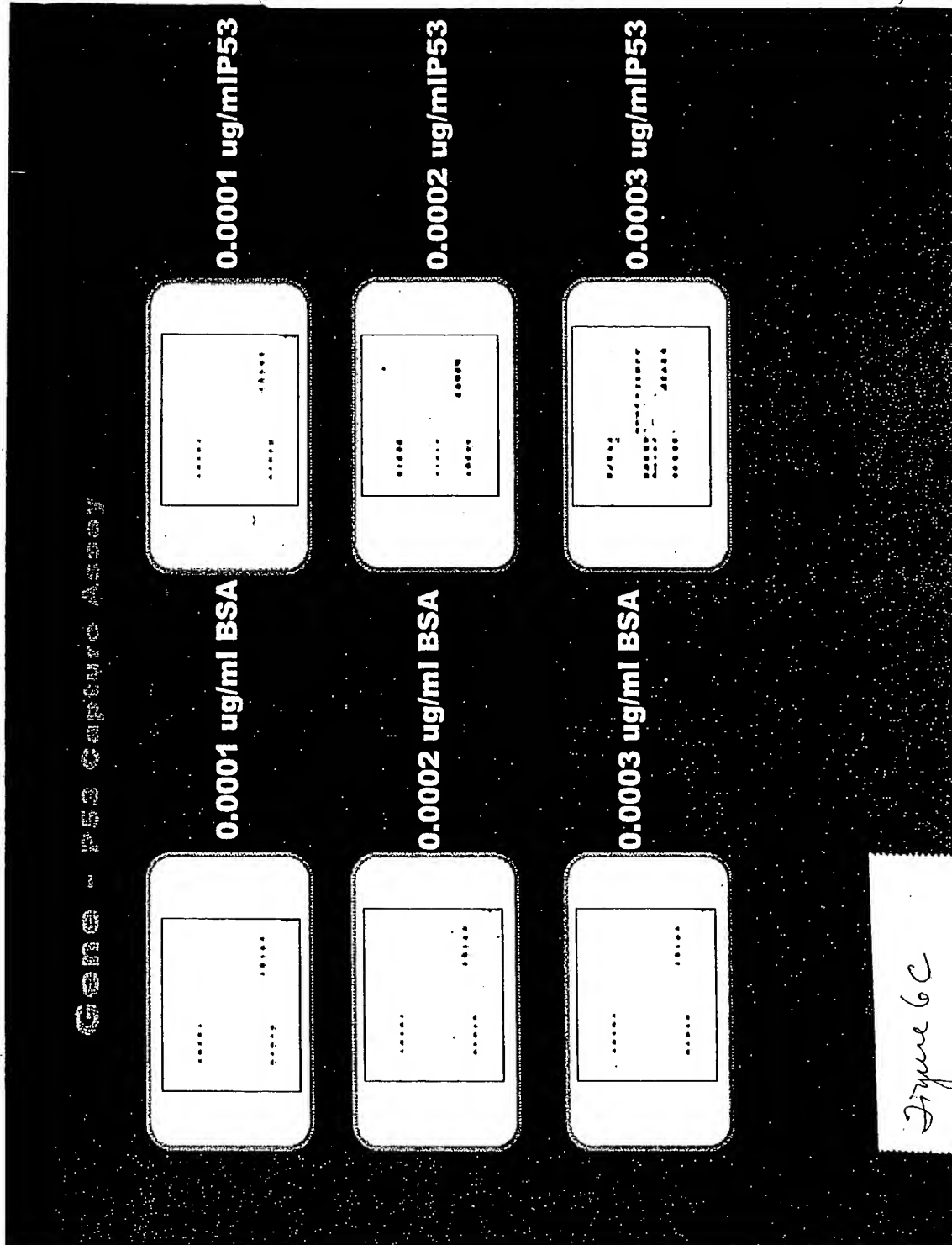


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## Example 2: Western Blot Type Assay

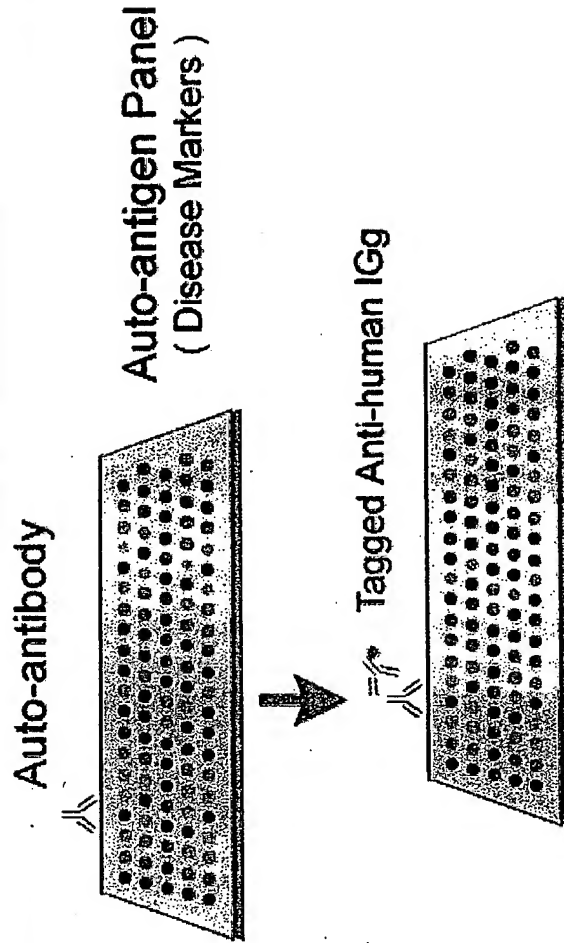


Figure 7A

Experiment in Progress: Identify Autoimmune disease specific profiles  
based on hundreds → thousands of antigens

# Autoimmune Disease Assay Antigens

- |                                  |                                      |  |
|----------------------------------|--------------------------------------|--|
| • SSB                            | • Apolipoprotein H                   | • Brain fraction 1                                 |
| • Sm                             | • Scl-70                             | • Brain Fraction 16                                |
| • Smith                          | • DNA topoisomerase                  | • Thymus fraction 15                               |
| • pANCA                          | • Sm/RNP                             | • Thymus fraction 16                               |
| • myeloperoxidase                | • Scl-70                             | • Lymph fraction 6                                 |
| • neutrophil cytoplasmic antigen | • Mitochondrial Antigen              | • Lymph fraction 16                                |
| • cANCA                          | • Plasmid DNA                        | • Spleen fraction 13                               |
| • proteinase 3                   | • proliferating Cell nuclear antigen | • Kidney fraction 15                               |
| • Jo-1                           | • SSA                                | • Thymus Fraction 16                               |
| • histidyl tRNA synthetase       | • Clq                                | • Lymph Fraction 6                                 |
| • ApoH                           | • SRC                                | • Lymph Fraction 16                                |
|                                  | • Smith/RNP complex antigen          | • Spleen Fraction 13                               |
|                                  | • Whole Histone                      | • Kidney Fraction 15                               |
|                                  | • Histone F2b                        |  |
|                                  | • Histone F2a2                       |  |
|                                  | • Histone F3 and F2a1                |  |
|                                  | • Histone F1                         |  |
|                                  |                                      | RA, Kidney cDNA<br>Library recombinant<br>proteins |

Figure 7B

MICROARRAY-BASED ANALYSIS OF RHEUMATOID ARTHRITIS  
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Serum in stock

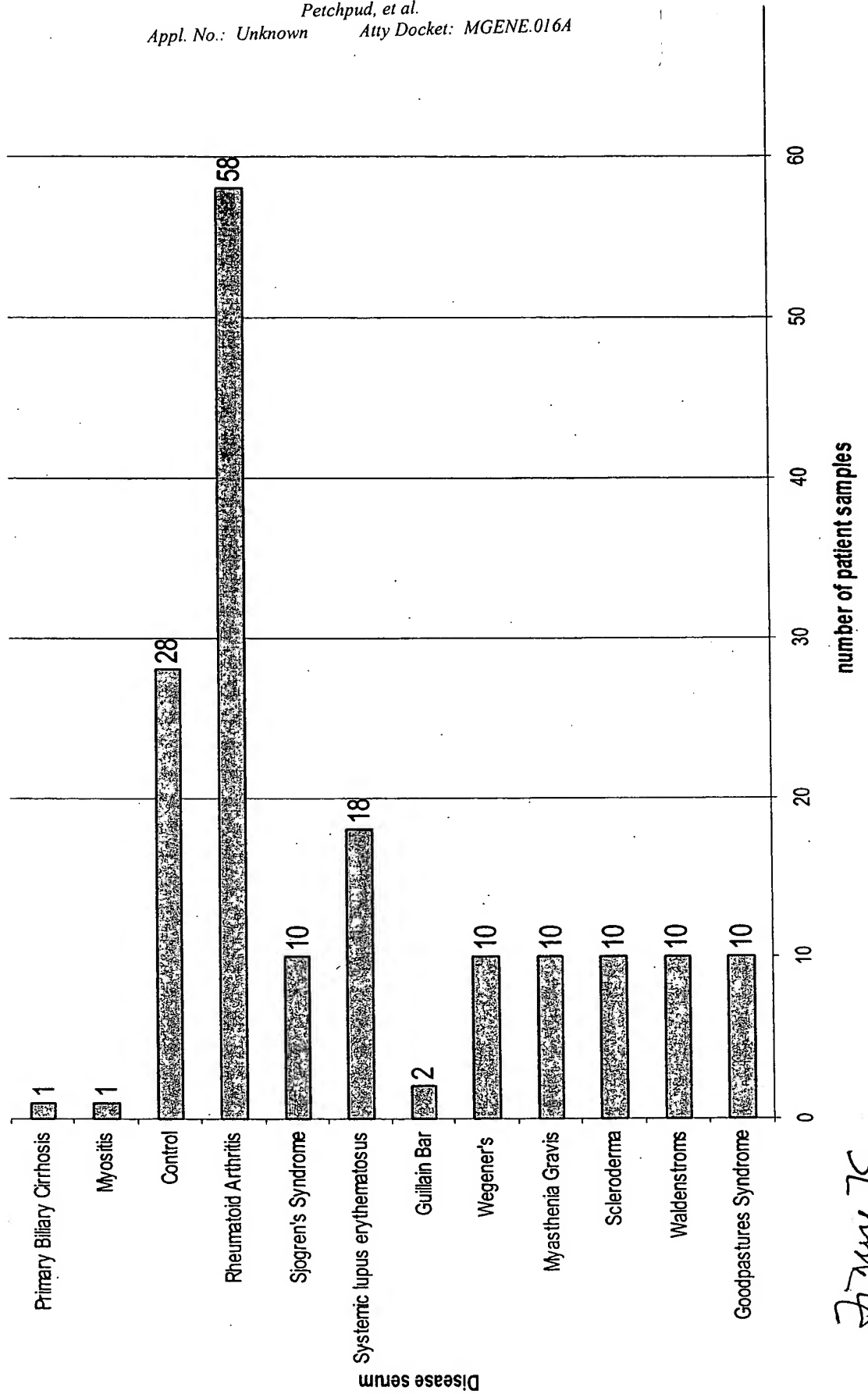


Figure 7C

MICROARRAY-BASED ANALYSIS OF RHEUMATOID ARTHRITIS  
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Lupus Titration

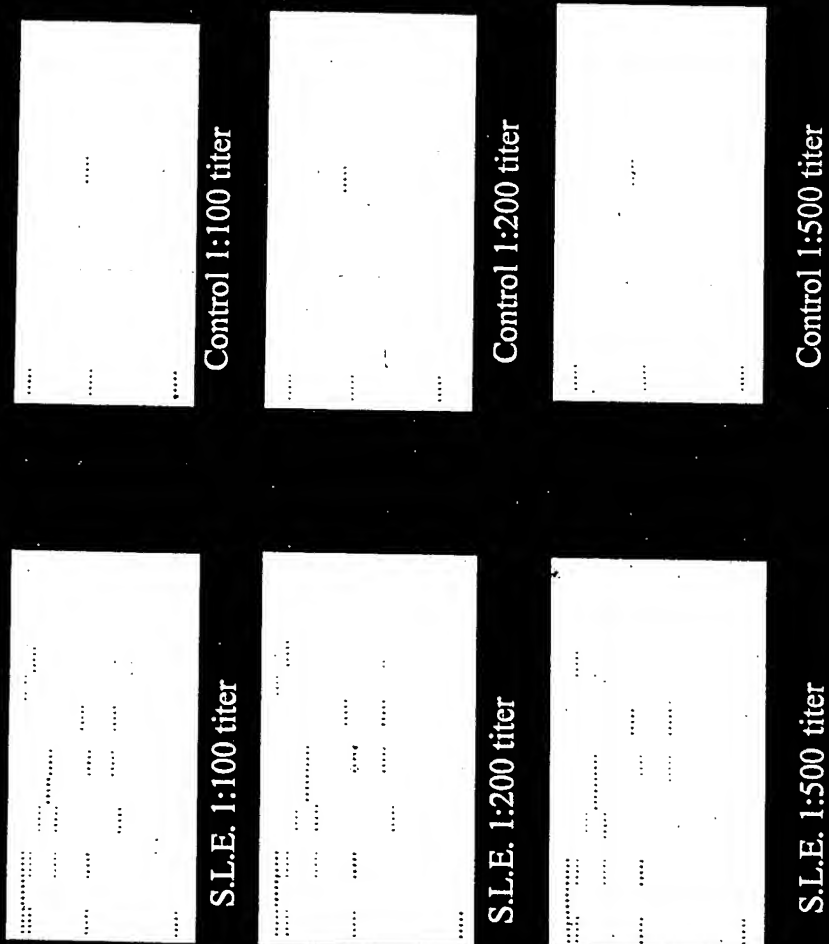
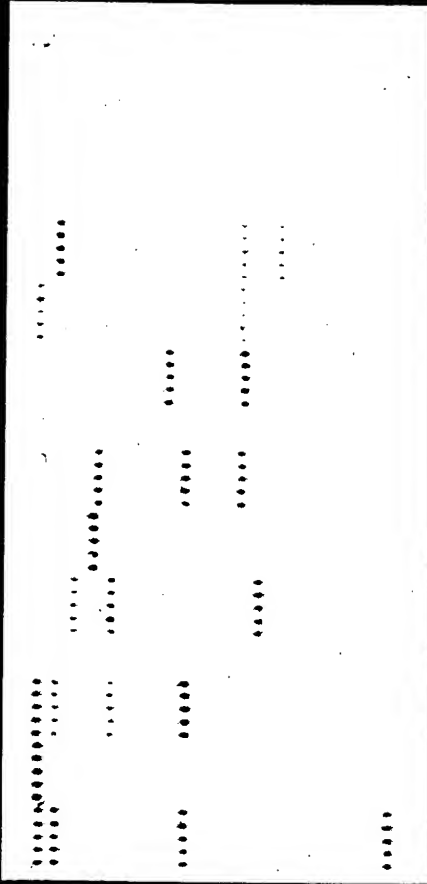


Figure 7D

S.L.E. 1:100 titer with corresponding markers



Control 1:100 titer

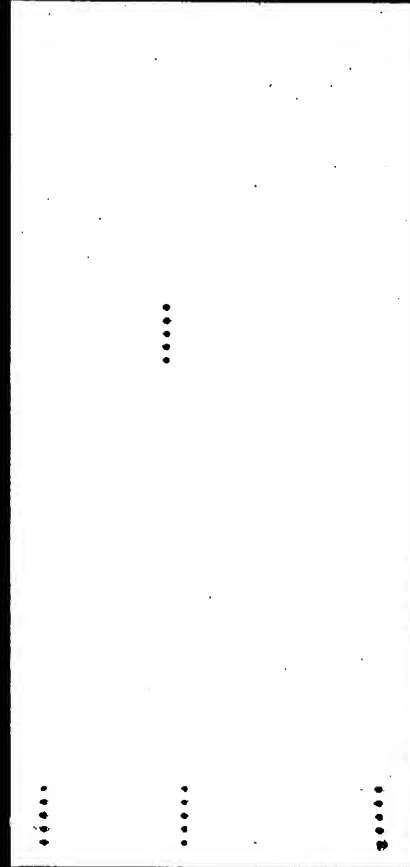


Figure 7E

MICROARRAY-BASED ANALYSIS OF RHEUMATOID ARTHRITIS  
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Sjogrens titration



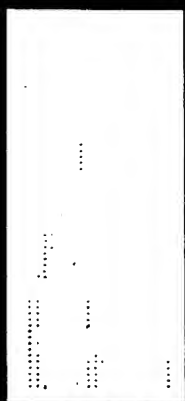
Control 1:100 titer



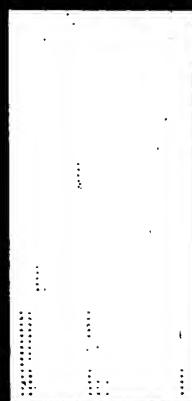
Control 1:200 titer



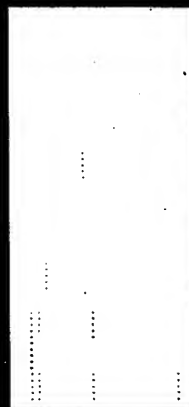
Control 1:500 titer



S.S. 1:100 titer



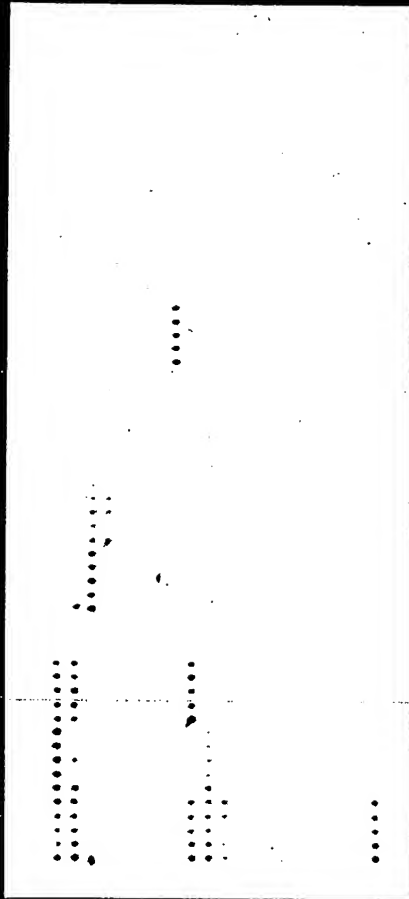
S.S. 1:200 titer



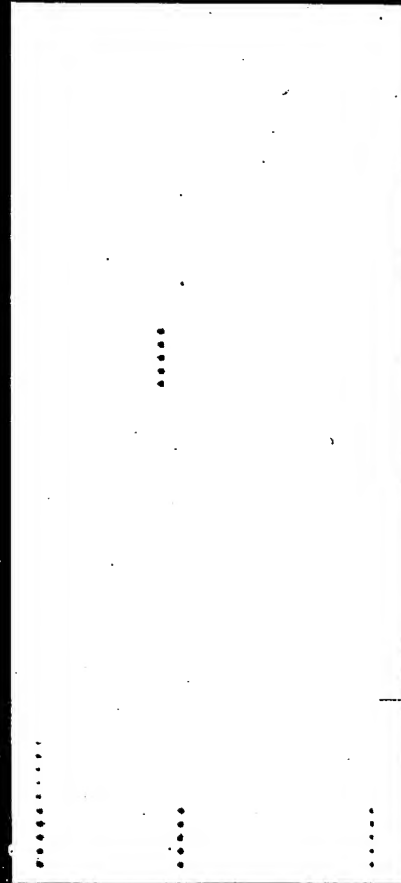
S.S. 1:500 titer

Figure 7F

S.S. 1:100 titer



Control 1:100 titer



A= secondary antibody  
B=SSA (Sjogren syndrome type A  
Antigen)  
C=SSB (Sjogren syndrome type B  
Antigen)  
E= MIT (mitochondrial antigen)

Figure 76